DT01 Rec'd PCT/PTC 2 3 FEB 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application: Listing of Claims:

IN THE CLAIMS:

- 1. (Original) A method for the treatment or prophylaxis of arthritis in a subject, said method comprising administering to the subject an effective amount of an agent which inhibits the activity of granulocyte-colony stimulating factor (G-CSF) or a functional or structural homolog thereof or granulocyte-colony stimulating factor receptor (G-CSFR) or a structural or functional homolog thereof and/or which reduces the level of expression of a gene encoding said G-CSF or G-CSFR.
- 2. (Original) The method of Claim 1 wherein the arthritis is chronic inflammatory arthritis.
- 3. (Original) The method of Claim 1 wherein the condition is rheumatoid arthritis (RA).
- 4. (Original) The method of Claim 1 wherein the arthritis is collagen induced arthritis (CIA).
- 5. (Currently Amended) The method of any one of Claims 1 to 4 Claim 1 wherein the subject is an animal or avian species.
 - 6. (Original) The method of Claim 5 wherein the animal is a mammal.
 - 7. (Original) The method of Claim 6 wherein the mammal is a primate.
 - 8. (Original) The method of Claim7 wherein the primate is a human.

- 9. (Original) The method of Claim 6 wherein the mammal is a rodent.
- 10. (Original) The method of Claim 9 wherein the rodent is a mouse.
- 11. (Original) The method of Claim 1 wherein the agent is an antibody raised against G-CSF or G-CSFR.
- 12. (Original) The method of Claim 11 wherein the antibody is a monoclonal antibody.
- 13. (Original) The method of Claim 11 wherein the antibody is a polyclonal antibody.
- 14. (Original) The method of Claim 1 wherein the agent is soluble G-CSFR or a functional homolog, analog or derivative thereof.
- 15. (Original) The method of Claim 1 wherein the agent is a chemical analog of G-CSF.
 - 16. (Original) The method of Claim 1 wherein the agent is a protein.
- 17. (Currently Amended) The method of any one of Claims 14 to 16 Claim 14 wherein the agent is a protein.
 - 18. (Original) The method of Claim 1 wherein the gent is a nucleic acid.
- 19. (Original) The method of Claim 18 wherein the nucleic acid is DNA or RNA and comprises a sense or antisense polynucleotide sequence or a genetic sequence encoding G-CSF or G-CSFR or part or transcript thereof.
 - 20. (Original) The method for identifying an agent which inhibits the activity of

G-CSF or G-CSFR said method comprising contacting putative inhibitory agents with said G-CSF or G-CSFR, wherein the agent is identified as an inhibitory agent by binding or otherwise associating with G-CSF or G-CSFR.

- 21. (Original) The method for identifying an agent which regulates the expression of a genetic sequence encoding G-CSF or G-CSFR said method comprising contacting putative regulatory agents with said genetic sequence encoding a G-CSF or G-CSFR, wherein the agent is identified as a regulatory agent by binding or otherwise associating with said genetic sequence encoding a G-CSF or G-CSFR.
- 22. (Original) A pharmaceutical composition comprising an agent which inhibits the activity of G-CSF or G-CSFR in a subject and/or which reduces the level of expression of the gene encoding said G-CSF or G-CSFR in a subject, together with a pharmaceutically acceptable carrier or diluent.
- 23. (Original) The pharmaceutical composition of Claim 22 wherein the subject is an animal or avian speicies.
- 24. (Original) The pharmaceutical composition of Claim 23 wherein the animal is a mammal.
- 25. (Original) The pharmaceutical composition of Claim 24 wherein the mammal is an primate.
- 26. (Original) The pharmaceutical composition of Claim 25 wherein the primate is a human.
- 27. (Original) The pharmaceutical composition of Claim 26 wherein the mammal is a rodent.

- 28. (Original) The pharmaceutical composition of Claim 27 wherein the rodent is a mouse.
- 29. (Original) The pharmaceutical composition of Claim 22 wherein the agent is an antibody raised against G-CSF or G-CSFR.
- 30. (Original) The pharmaceutical composition of Claim 29 wherein the antibody is a monoclonal antibody.
- 31. (Original) The pharmaceutical composition of Claim 29 wherein the antibody is a polyclonal antibody.
- 32. (Original) The pharmaceutical composition of Claim 22 wherein the agent is soluble G-CSFR or a functional homolog, analog or derivative thereof.
- 33. (Original) The pharmaceutical composition of Claim 22 wherein the agent is a chemical analog of G-CSF.
- 34. (Original) The pharmaceutical composition of Claim 22 wherein the agent is a chemical analog of G-CSFR.
- 35. (Currently Amended) The pharmaceutical composition of any one of Claims 32 to 34 Claim 32 wherein the agent is a protein.
- 36. (Original) The pharmaceutical composition of Claim 22 wherein the agent is a nucleic acid.
- 37. (Original) The pharmaceutical composition of Claim 36 wherein the nucleic acid is DNA or RNA and comprises a sense or antisense polynucleotide sequence or a genetic sequence endcoding G-CSF or G-CSFR, or fragments thereof, flanking a positive or negative selectable marker.

- 38. (Original) A targeting or marker-exchange mutagenesis vector useful for inactivating a gene encoding G-CSF or G-CSFR in a cell, said vector comprising two segments of genetic material encoding G-CSF or G-CSFR, or fragments thereof, flanking a positive or negative selectable marker.
- 39. (Original) A genetically modified animal cell comprising the vector of Claim 35 or part of said vector.
- 40. (Original) The genetically modified cell of Claim 39 wherein said cell is an embryonic stem cell.
- 41. (Currently Amended) A genetically modified animal or embryo comprising, being derived from, one or more of the cells of Claims Claim 39 or 40, wherein said animal produces low amounts of G-CSF or G-CSFR relative to a non-genetically modified animal of the same species.
- 42. (Currently Amended) The genetically modified animal cell of Claims Claim 39 or 40 wherein the animal is a mouse.
- 43. (Original) The genetically modified animal of Claim 42 wherein the animal is a human.
- 44. (Currently Amended) A method of producing the genetically modified cell of Claims Claim 39 or 40, said method comprising introducing the vector of Claim 38 a vector comprising two segments of genetic material encoding G-CSF or G-CSFR, or fragments thereof, flanking a positive or negative selectable marker, into one or more embryonic stem (ES) cell(s) and selecting for expression of the selectable marker gene, wherein the G-CSF and/or G-CSFR gene in the resultant transformed cell(s) is inactivated by homologous recombination with said vector.

45. (Original) A *in-vivo* method for identifying agents capable of inhibiting the activity of G-CSF and/or inhibiting the interaction of G-CSF with G-CSFR and thereby ameliorate the effects of arthritis, said method comprising administering a putative inhibitory agent to an animal, wherein said agent is identified as having interactivity with G-CSF or G-CSFR.